

WAR CRY



SPECIAL GAZETTE OF THE SALVATION ARMY IN CANADA AND NEWFOUNDLAND

Headquarters: 101 Queen Victoria St., London, E.C.

Territorial Headquarters: James and Albert Sts., Toronto.

No. 24. W. Bramwell Booth, General TORONTO, FEBRUARY 27, 1915. W. J. Richards, Commissioner. Price Two Cents.

WHERE CANNON ROAR

WITH THE SALVATION ARMY AMBULANCE UNIT AT THE BACK OF THE FRONT

By Capt. Bramwell Taylor



A Momentary Halt by the Way.

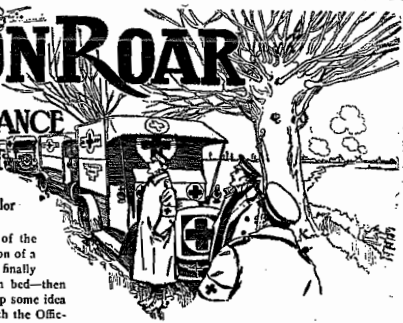
of perhaps the full length of the Red Cross ship, the negotiation of a couple of flights of stairs, and finally the putting of the patient in bed—then you will be able to conjure up some idea of the kind of work into which the Officers and orderlies of the Unit were thrust at the onset.

The task of the drivers was extremely trying. The hours were long and the constant concern for their tragic human freight was most enervating, for the roads were lumpy, and the groaning of men in pain is a disturbing sound.

During those first days, because we were designated by the officials as being "big and hefty," we were in great request for carrying men on our backs. Only the men suffering from wounds, fevers, and utter exhaustion are conveyed on stretchers: others "ride" on the backs of the orderlies.

Boulogne provided us with sufficient evidence of the cruelty and senselessness of war, but what we have experienced there was as nothing to what we have seen and heard since leaving the base for the front.

The order to prepare for transference to a depot just behind the firing line set us rejoicing and made us as busy as bees, for we were only



given three hours to pack our kit, overhaul the cars, write to the folks at home, get numerous requirements, such as kettles, frying pans, blankets, hurricane lamps, and other articles which form the outfit of the men who are roughing it for the sake of the beloved Homeland.

IN A QUIVERING BARN

Of the thrills and throbs experienced during the first night spent in the shadow of the firing line, I could, had I time, a cosy corner, and a decent pen, write much. But a draughty barn is not the most comfortable place for a writer; the pen I am using ought to have been scrapped long ago; the ink, the life of which we are trying to lengthen by frequent doses of water, keeps refusing to do its duty. Then, too, as I write, the old barn is quivering, for the big guns are at work, and when they are in action the whole countryside trembles. I might also mention the light—the fitful glimmer of a hurricane lamp swinging on the end of a piece (Concluded on Page 3.)

live and work in a district where every stroke of the clock is a toll for the gallant dead is to experience a riot of sensations. If one submitted to the subtle temptation upon the ghastly sights witnessed, and the stories heard, peace of mind would be impossible, and the work we have to do would mark us with intolerable depression.

A adequate description of the tragic effects of this sanguinary struggle which is being waged in the Channel would spread broad the wall of a great lament. But the unveiled grim tragedy now being enacted shall be told by other pens than mine. A happier mission to my lot—the chronicling of the noble rescue committed to The Salvation

past weeks have been thick with vivid years seem to have elapsed since we have seen the fruits of peace; the bitterness of war has robbed life of its sweetness and have fitted wings to time.

Hours after our arrival in France we were set to work—work which taxed the main of us to the limit of our physical strength, and to say that it requires muscular and plenty of nerve is to use mild terms. Carrying, on a canvas stretcher, a man whose limbs have been shattered, who weighs twelve to fourteen pounds, and to whom the very sight of a soldier is no evitable task, is to say that it is, say, a couple of miles, the true meaning of a long gangway of forty degrees; another walk



"By the aid of much-watered ink, a poor pen, and a hurricane lamp our article was written."

Use the aeroplane often (Isaiah 40:31). Mount up with wings like eagles (prayer).

RS ABOUT INTERESTING PEOPLE

(Continued on Page 15.)

THROWING THE VOICE ACROSS THE CONTINENT



The Tortuous Route Across the Continent.

When you, in New York, talk to your San Francisco friend, your voice follows the line drawn on this map.

YESTERDAY, New York to Denver was the utmost limit of the telephone. Today, New York can talk with San Francisco. A man in New York can pick up his office telephone and for sixteen dollars can get a man on the water front of the Pacific, over 3,364 miles of wire, by a shipment of oranges, and know that as he finishes talking, the first steps are already being taken for the transmission of the goods.

Long possible in theory, this problem of solving long-distance talking has for the past twenty years been growing grey hair on the heads of telephone engineers. The first long-distance talk—over a borrowed telegraph wire—of sixteen miles, in 1866, between Boston and Cambridge, was a wondrous feat. New York to Boston talk in 1880 was a greater wonder still. When Alexander Graham Bell talked in 1892 over the then new line between Chicago and New York, the final word was supposed to have been said in long-distance conversation.

Then, a little over a year ago, the Denver-New York line—2,011 miles long—as thrown open to the public—three minutes talk for eleven dollars and telephone engineers, knowing all the difficulties that are encountered in transmitting the human voice clearly, it is more remarkable that a voice can be made to travel over two thousand miles longer than that a message can be ticked off by a wireless instrument and made to radiate in the unopposing ether to a distance of a thousand or two thousand miles.

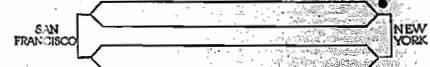
Consider this fact: Your voice with all its intonations, starting at your New York office, travels along the wire to Buffalo, thence to Cleveland, into Chicago, and thence to St. Paul, Iowa, to Des Moines, on across the Missouri River into Omaha. The next station is North Platte, then Julesburg, Colorado. A sharp turn to Sterling, your voice climbs the mountains, and it is in the cool, bracing air of Denver's mountains.

Your voice does not stop here. It leaps past the panting mountain climbers—the railway engines; it ranges along to Cheyenne, into a new State, Wyoming, is guided

though Laramie, Rawlins, Evanston—next it hums through Salt Lake City, into Timpani and Wendover, State of Utah. It is now tapping through States, not cities. Nevada is next and therein it touches the town of Wells, Elko, Winnemucca, Wadsworth, Reno.

At last California is reached and on the home-stretch your voice flies past Sacramento and is picked up at San Francisco.

Back comes the voice of your correspondent. You toss words at each other, back and forth, along this winding wire, across the whole continent of working, talking people, and you hear each other and each other only; your messages of love, of friendship, or of business exchanged, you hang up your receiver, and you have never filed a message with a wireless man, and been handed a written answer in return.



The Whole Circuit Between Coasts, Without Interrupting Mechanisms. It is composed of two lead, repeating circuits and an extra phantom circuit.

ly, after hours of waiting. You have yourself taken part in a truly wonderful mechanical operation.

This talk was not possible six years ago, nor three years ago, nor six months ago.

To understand the difficulty of pushing the voice to long distances, the reader must first understand that the means by which the voice is carried is one of the most subtle and uncertain known in sound.

Ask a telephone engineer if there is an electric current used in transmitting the voice, and he will say, "Yes." Ask him how great the current, and he will tell you that the tiny current used is so small, so weak, that it cannot be measured except with very delicate instruments. This current must be protected against many enemies. Every street railway and electric telephone. Then, rain and wet and snow and cold and heat are its enemies, too. Dust is its enemy. So slight and small boys with their kites and slings and marbles for throwing things on the telephone wires. So slight and small boys with their kites and slings and marbles for throwing things on the telephone wires.

Just a year ago, Bauer, who works in the myriad-wire testing station, looking for honey, cut down the

poles, mistaking the hub of the wires for the buzz of bees. An Emperor, a Veteran, an Olympic of the seas may steam into a harbour and sit on a cable, and another enemy of the telephone is found.

When a wire is laid in good condition, when the transmitters are perfect, when the smaller wires are insulated with enamel instead of silk and glass, as has just been done across the continent, when all is in working order, the long-distance chief has to contend with the fact that voice sounds and it is cut out and waste away before they reach their destination. Take a fifty-foot rope, lay it along the ground, and then attempt to twist it vigorously. The twisting movement becomes so violent in proportion as it travels along the rope. If a knot is tied in the middle of the rope, then the twisting movement picks up as it passes the knot and continues further along the rope. The voice acts in the same way on a wire.

A dozen years ago Michael J. Pupin, of Columbia University, New York, devised a means of tying knots in wires, that is, he reloaded them at intervals. This was a great step in long-distance work.

But Pupin's invention did not go far enough. It was still impossible to carry the voice across the continent. It has remained for the newly-invented repeater to do this—a device which gives new vigour to the sound of the voice after it has passed through a vacuum.

A handmaiden to the repeater is the "phantom circuit," which may be described as a species of wireless. In the modern telephone plant all circuits are metallic, that is, there are two wires for each circuit, the ground return not being used as in telegraphy. Some years ago, Carby in the United States and Jacobs in England discovered that three messages could be run on two trunk wires at the same time, instead of two messages, if the trunks were crossed at intervals and perfectly balanced electrically. Three years ago the engineers discovered how to load No. 8 (long-distance) wires by

the Pupin method—and at the same time "to phantomize" and by this discovery were enabled to make the two wires between Chicago and New York carry three messages. The phantom device has already saved five or six million dollars in the New York to Denver line an economic possibility.

Another engineering invention that has materially aided in making practically possible the New York to coast talk is the open finder of Bauer. It is one thing for the talk to be theoretically possible and another to make the talk practical for public use at any time of the day or night. During the last months of the year 1914 the engineers working in New York and San Francisco talked to each other frequently, but in a jargon of letters and numbers, untrained ear could understand. Then, suppose the line had been earlier opened to the public, and had to be shut again because of the need of making repairs? The public would have become disgruntled and declared the line non-existent.

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(Continued from page 12)

lent female also organized a group of her friends to meet the war effort. The organization was called the "War Cry" and its purpose was to provide a voice for the women of the war.

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NEWS NOTES and COMMENTS

ADJUSTMENT FINANCES. Measures proposed by Finance Ministry to meet the needs of the war will be cheerfully accepted by the people of Canada as a necessary and just measure.

Russian Relief Measures. The Russian Duma has passed some resolutions which may well be described as acts of genuine humanity. The first of these is that the Government take as rapidly as possible, measures for the relief of the provinces which have suffered from the operations of the war.

BANISHING OPIUM. A very important agreement has been reached by the United States, Holland, and China, regarding the banishment of opium.

WAR TAXES. Canadian will escape the burden of the war taxation which is being levied on the people of the United States.

THE KING OF THE BELGIANS. The King of the Belgians is a man of great courage and determination. He has led his people through the most difficult times of their history.

FAMOUS HYMN-WRITER DEAD. Fanny Crosby, the blind hymn-writer, whose compositions have become such favourites at revival meetings, passed away at Bridgeport, Conn., on Feb. 12th.

PLAN TO REBUILD CITY. The Belgians are already planning to rebuild their ruined cities. They are working hard to restore the cities to their former glory.

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posals our experience, for the development of Belgium towns along modern lines.

A CONSOLING REVELATION. It is the opinion of Maurice Maeterlinck, the famous Belgian dramatist, that this war is proving civilization to be not such a failure as some men have contended. He says:

"The magnificent bravery displayed on European battlefields demonstrates convincingly that civilization, far from enervating, weakening, diminishing or lowering man, uprisings, purifies, strengthens, and enables him, and renders him capable of a sacrifice, generosity, and courage such as never before have been seen. Civilization, which seemed to corrupt men, really increases their intelligence, which, in turn, leads to unformable pride, nobility, and heroism in times of stress."

PERHAPS HE OVERSTUDIED IT. The "educated" worm of Harvard University is dead. Before "Petit" matriculated in the psychological laboratory of Professor Yerkes, he was leading an idle and dissolute life in a Cambridge holiday.

Professor Yerkes gave "Petit" an education in an effort to prove that worms have intelligence. He rigged up a tube shaped like a "P" for "Petit" to wriggle in. The right arm of the "P" led to a comfortable burrow of wet blotting paper. The other arm led to wires that would give "Petit" an electric shock. The professor also discouraged "Petit" from making a trip the wrong way.

It took many trials for him to discover which road led to worms paradise, but the professor finally trained him so that he could make the trip twenty times a day. Very seldom did he fail to go the right way. Once he was kept out of the "P" tube for a month, and the first time he was put back he remembered which was the road to comfort and which to danger.

In all he made more than a thousand wriggles through the tube.

CHINAMAN HELPS BELGIANS. A touching little sidelight on the war comes from Limhouse, England. When the shells were falling thick and fast on the city of Antwerp, and the people were casting about for means of escape, a Chinaman in the city saw the distress of the Belgians.

He had become acquainted and promptly evolved a plan of rescue. "You come with me," said he to the old man. "I will take you to London. I know a man who will take you in and care for you. You trust me!"

There was no help for it, and so the old man took his wife, daughter—her husband, Ah! where was he now?—and her son, and they accompanied the Chinaman to England. In all he made more than a thousand wriggles through the tube.

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FARMERS AND THE WAR. The farmers of Manitoba and Alberta have publicly expressed their views regarding the war in the following resolution:

"We . . . in view of the awful destruction of life and property and the infinite misery resulting from the present war, desire to express our deep conviction that the terms of peace are drafted at the end of the war, the chief end must be to make future wars impossible, so that the end of this war shall be the end of all wars between civilized nations, and to effect this peace should be arranged, not on lines of conquest and national humiliation, leaving a rankling soreness and bitterness, and planting the seeds of future war, but on lines aiming at satisfying all legitimate national aspirations, destroying militarism in all countries, bringing about general disarmament, and abolishing all manufacturing of arms and munitions of war in private factories, so that no man may profit from the slaughter of his fellow-men."

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Journal of Management Education 30(6)

